We claim:

1. An apparatus for molding a thin shell having an outer layer and an inner layer, the apparatus comprising:

at least two tubs configured to hold charge materials for delivery to a mold cavity, each tub having a tub opening for dispensing charge materials;

the tubs being simultaneously rotatable around a horizontal axis to an orientation where the charge materials will dispense from the tubs;

the tub openings configured to be alternately blockable to allow the tubs to alternately dispense charge material into the mold cavity.

2. An apparatus for molding a thin shell having an outer layer and an inner layer, the apparatus comprising:

a support structure supported for rotation around a horizontal axis;

at least two tubs supported on the support structure and configured to hold charge materials for delivery to a mold cavity, each tub having a tub opening for dispensing charge materials;

the tubs being rotatable with the support structure around the horizontal axis to an orientation where the charge materials will dispense from the tubs;

the tubs being alternately movable on the support structure to a dispensing position, the support structure configured to unblock the tub opening of each tub in the dispensing position to allow the tubs to alternately dispense charge material into the mold cavity.

3. An apparatus as defined in claim 2 in which the support structure is configured to block the tub openings of tubs not in the dispensing position when a tub is in the dispensing position.

4. An apparatus as defined in claim 3 including two tubs and which:

a first one of the two tubs is movable between a first outer position and the dispensing position;

a second one of the two tubs is movable between a second outer position and the dispensing position;

the support structure is configured to block the tub opening of the first tub in the first outer position;

the support structure is configured to block the tub opening of the second tub in the second outer position; and

the support structure is configured to allow charge materials to flow from the tub opening of a tub in the dispensing position.

5. An apparatus as defined in claim 4 in which the first and second tubs are connected and move together on the support structure.

6. An apparatus as defined in claim 4 in which the mold cavity is removably supportable on the support structure to rotate with the support structure.

7. An apparatus as defined in claim 4 in which a hopper is supported on the support structure adjacent the dispensing position and is connected between the tubs and the mold cavity.

8. An apparatus as defined in claim 4 in which the two tubs may be moved together into a position with both tub openings unblocked.

9. An apparatus for molding a thin shell having an outer layer and an inner layer, the apparatus comprising:

at least two tubs configured to hold charge materials for delivery to a mold cavity; and

a diverter valve connectable between the tubs and the mold cavity, the diverter valve configured to alternately open a passage from each of the tubs to the mold cavity to allow charge materials from the respective tubs to be selectively dispensed into the mold cavity.

10. An apparatus as defined in claim 9 in which the diverter valve includes a separator blade pivotally mounted within a chute that extends between the mold cavity and the two tubs;

the separator blade pivotally movable between a first position and a second position within the chute, in the first position the separator blade positioned to admit the flow of material from the first tub through the chute and to block the flow of material from the second tub through the chute; in the second position the separator blade positioned to admit the flow of material from the second tub through the chute and to block the flow of material from the first tub through the chute.

11. An apparatus as defined in claim 10 in which the chute includes a mold opening configured to removably connect to a mold comprising the mold cavity and a tub opening configured to removably connect to the tubs.

12. An apparatus as defined in claim 10 in which the diverter valve includes first and second gussets fixed to respective chute side walls and configured to support an outer edge of the separator blade in its respective first and second positions within the chute.

13. An apparatus as defined in claim 9 in which the tubs, diverter valve and mold cavity are supported for rotation around a horizontal axis.

14. An apparatus as defined in claim 11 in which a hopper is connected between the chute and the mold cavity and is removably attachable to the mold opening of the chute and to an outer edge of the mold, the hopper configured to guide material from the tubs into the mold.

15. A method for molding a thin shell having an outer layer and an inner layer, the method including the steps of:

providing a mold having a mold surface configured to complement the desired shape of the shell to be molded;

heating the mold surface;

providing a first polymer material in a first tub having a first tub opening;

providing a second polymer material in a second tub having a second tub opening;

blocking the second tub opening;

tipping the tubs and the mold until at least a portion of the first polymer material dispenses from the first tub onto the mold surface to form an outer layer;

righting the tubs and the mold;

opening the second tub opening;

blocking the first tub opening;

tipping the tubs and the mold until at least a portion of the second polymer material dispenses from the second tub onto at least a portion of the outer layer to form an inner layer;

cooling the mold surface;

allowing the inner and outer layers to bond together; and

removing the shell from the mold.

16. A method as set forth in claim 15 in which the steps of dispensing a first polymer material and dispensing a second polymer material each include the step of dispensing a polymer particulate.

17. A method as set forth in claim 16 in which the first or second polymer particulate comprises powder.

18. A method as set forth in claim 16 in which the first or second polymer particulate comprises microspheres.

19. A method as set forth in claim 15 in which the step of dispensing a first polymer material includes the step of dispensing a first polymer material including a material for imparting a predetermined color to the shell.

20. A method as set forth in claim 19 in which the step of dispensing a first polymer material including a material for imparting a predetermined color to the shell includes a pigment.

21. A method as set forth in claim 15 in which:

the step of providing a first polymer material in a first tub includes the steps of moving the first tub to a filling position on a support structure and filling the first tub with the first polymer material; and

the step of providing a second polymer material in a second tub includes the steps of moving the second tub to a filling position and filling the second tub with the second polymer material.

22. A method as set forth in claim 21 including the additional step of moving the two tubs together to meet at the filling position before the steps of providing the first and second polymer materials in the respective first and second tubs.

23. A method as set forth in claim 15 in which the steps of providing a first polymer material in a first tub and providing a second polymer material in a second tub includes the steps of:

connecting the tubs to a diverter valve, the diverter valve configured to provide a polymer material flow path from one of the tubs while blocking polymer material from flowing from the other of the tubs;

operating the diverter valve to provide a flow path for the first polymer material from the first tub while blocking the flow of the second polymer material from the second tub; and

operating the diverter valve to provide a flow path for the second polymer material out of the second tub while blocking the flow of the first polymer material from the first tub.

24. A method as set forth in claim 23 in which:

the step of connecting the tubs to a diverter valve is preceded by an additional step of providing a diverter valve comprising a separator blade pivotally mounted within a chute, the chute configured to releasably connect a mold cavity to the two tubs and to provide a polymer material flow path from the tubs to the mold cavity, the separator blade being pivotally movable between a first position and a second position within the chute, the separator blade in the first position admitting the flow of material from the first tub through the chute and blocking the flow of material from the second tub through the chute, the separator blade in the second position admitting the flow of material from the second tub through the chute and blocking the flow of material from the first tub through the chute;

the step of operating the diverter valve to provide a flow path for the first polymer material includes the step of pivoting the separator blade to the first position; and

the step of providing a layer of the second polymer material on the layer of the first polymer material by operating the diverter valve includes the step of pivoting the separator blade to the second position.

25. A thin shell for an automotive trim panel, said shell having an outer layer and an inner layer, the shell comprising:

an outer layer comprising a first polymer material;

an inner layer comprising a second polymer material;

the second polymer material further comprising a polymer material at least a portion of which comprises a formed article prior to its use as the second polymer material; and

the inner layer at least partially covering the inner surface of the outer layer and concealed from view by vehicle occupants.

26. The thin shell for an automotive trim panel of claim 25, wherein said formed article comprises a polymer material that has been previously been converted by heat into a desired shape.

27. The thin shell of claim for an automotive trim panel of claim 25 wherein said formed article comprises polymer regrind material, recycled polymer material, or reclaimed polymer material.

28. A thin shell for an automotive trim panel, said shell having an outer layer and an inner layer, the shell comprising:

an outer layer comprising a first polymer material;

an inner layer comprising a second polymer material;

the second polymer material further comprising a mixture of two or more different polymer formulations; and

the inner layer at least partially covering the inner surface of the outer layer and concealed from view by vehicle occupants.

29. The inner shell for an automotive trim panel of claim 28 wherein said polymer formulations comprise a polymer combined with one or more additives, and said formulations differ with respect to the polymer component of said polymer formulations.

30. The inner shell for an automotive trim panel of claim 28 wherein said polymer formulations comprise a polymer combined with one or more additives, and said formulations differ with respect to the additive component in said polymer formulations.

31. The inner shell for an automotive trim panel of claim 28 wherein said polymer formulations comprise a polymer combined with one or more additives, and said formulations differ with respect to the additive component in said polymer formulations, and said additive comprises a pigment.

32. A thin shell for an automotive trim panel, said shell having an outer layer and an inner layer, the shell comprising:

an outer layer comprising a first polymer material;

an inner layer comprising a second polymer material;

the second polymer material further comprising a polymer formulation which is more susceptible to ultraviolet degradation than the first polymer material; and

the inner layer at least partially covering the inner surface of the outer layer and concealed from view by vehicle occupants.

33. The thin shell for an automotive trim panel of claim 32, wherein said polymer formulation which is more susceptible to ultraviolet degradation than the first polymer material comprises a polymer formulation that has less UV stabilizer than the first polymer material of the outer layer.

34. The thin shell for an automotive trim panel of claim 32, wherein said polymer formulation which is more susceptible to ultraviolet degradation than the first polymer material comprises a polymer formulation that contains a second polymer material that is more unstable to UV light than said first polymer material.

35. A thin shell for an automotive trim panel, said shell having an outer layer and an inner layer, the shell comprising:

an outer layer comprising a first polymer material;

an inner layer comprising a second polymer material;

the second polymer material comprising a composition at least partially different than the first polymer material;

the outer layer comprising an average thickness in a range between and including 0.005 inches to 0.025 inches; and

the inner layer at least partially covering the inner surface of the outer layer and concealed from view by vehicle occupants.